

AMENDMENTS TO THE CLAIMS

1 (Currently amended). A computer-readable medium having stored thereon a plurality of sequences of instructions for converting a resolution based on a ~~model generated through statistical processing of multiple images~~ ~~plurality of models which have a different resolution respectively~~, the plurality of sequences of instructions including sequences of instructions, which, when executed by a processor, cause the processor to perform the steps of:

receiving an input image having a first resolution;

~~reducing the resolution of the input image to conform to a first model resolution of a first prepared model;~~

applying the input image to a first model having a first model resolution which corresponds to the resolution of the input image;

calculating a characteristic parameter of the ~~reduced~~ input image; and

applying the calculated characteristic parameter to a second ~~prepared~~ model ~~that~~ which has a second model resolution, the second model resolution being higher than the first model resolution; and

generating an output image having a second resolution which corresponds to the second model resolution and is higher than the first resolution.

2 (Currently amended). The computer-readable recording medium according to claim 1, further comprising ~~preparing a model using standard images~~ preparing a plurality of models using a standard image.

3. (Currently amended). The computer-readable recording medium according to claim 1, further comprising a step of preparing a resolution of the first model the second model through statistical processing from the first model.

4 (Original). The computer-readable recording medium according to claim 3, wherein the statistical processing is principal component analysis.

5 (Original). The computer-readable recording medium according to claim 3, wherein the first model represent a matrix of eigen vector values.

6 (Original). The computer-readable recording medium according to claim 3, wherein the second model is prepared by converting the first model resolution.

7 (Original). The computer-readable recording medium according to claim 1, further comprising:

extracting a face area and a background area from the input image, wherein the input image becomes the face area;

converting a resolution of the background area; and

synthesizing the resolution-converted background area and the input image.

8 (Currently amended). A resolution converting device comprising:

a preparing portion preparing multiple models having different resolutions;

a receiving portion receiving an input image;

~~a reducing portion reducing an input resolution of the input image to conform to a model resolution of a first prepared model;~~

a calculating portion calculating a characteristic parameter of the input image by applying ~~the reduced input image to the model resolution~~ input image to a first model having a resolution corresponding to the resolution of the input image; and

an image generating portion generating an output image having ~~an image a~~ resolution ~~larger~~ higher than the ~~input~~ resolution of the input image by applying the calculated characteristic parameter to a second prepared model having a ~~larger number of components than the first prepared model~~ resolution higher than the resolution of the first model.

9 (Currently amended). The resolution converting device according to claim 8, wherein the preparing portion prepares the multiple models using ~~a standard images~~ image.

10 (Currently amended). The resolution converting device according to claim 8, wherein the preparing portion prepares ~~a resolution of a first model through statistical processing~~ the second model through statistical processing ~~from the first model~~.

11 (Original). The resolution converting device according to claim 10, wherein the statistical processing is principal component analysis.

12 (Original). The resolution converting device according to claim 10, wherein each of the multiple models represents a matrix of eigen vector values.

13 (Original). The resolution converting device according to claim 10, wherein the preparing portion prepares the multiple models by converting the resolution of the first model.

14 (Currently amended). A resolution converting method comprising:
preparing multiple models having different resolutions;
receiving an input image;
detecting a resolution of the input image;
projecting the input image onto a first model selected in accordance with the detected resolution in order to obtain a characteristic parameter of the input image; and
generating an image by applying the obtained characteristic parameter to a second model different from the first model used to obtain the characteristic parameter,
wherein a resolution of the second model is higher than a resolution of the first model, and a resolution of the generated image is higher than a resolution of the input image.

15 (Original). The resolution converting method according to claim 14, wherein the step of preparing multiple models prepares the multiple models using standard images.

16 (Original). The resolution converting method according to claim 14, wherein the step of preparing multiple models prepares a resolution of a first model through statistical processing.

17 (Original). The resolution converting method according to claim 16, wherein the statistical processing is principal component analysis.

18 (Original). The resolution converting method according to claim 16, wherein each of the multiple models represents a matrix of eigen vector values.

19 (Original). The resolution converting method according to claim 16, wherein the step of preparing multiple models prepares the multiple models by converting the resolution of the first model.

20 (Original). The resolution converting method according to claim 14, further comprising:
extracting a face area and a background area from the input image, wherein the input image becomes the face area;
converting a resolution of the background area; and
synthesizing the resolution-converted background area and the input image.

21 (new). The computer-readable recording medium according to claim 1, further comprising preparing a plurality of models by reducing a resolution of a standard model.